# UNITED STATES PATENT AND TRADEMARK OFFICE

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| 09/843,249 | 04/26/2001 | Michael J. Albanese | EYEF.002PA | 7358 |

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DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>09 July 2004</u>.

2a)☐ This action is **FINAL.**     2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1-50</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-50</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>26 April 2001</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/23/01</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

## DETAILED ACTION

### *Information Disclosure Statement*

1) The Information Disclosure Statement (IDS) filed November 23, 2001, has been received and considered by the examiner.

### *Drawings*

1) The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference character(s) mentioned in the description: 166 and 168 on page 11, line 19. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2) The drawings are also objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 163 and 165 in Fig. 2. Corrected drawing sheets, or amendment to the

specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### Claim Objections

1) Claims 1-4, 6, 8, 9, 11-18, 20-22, 24, and 27-33, are objected to because of the following informalities: In the claims the phraseology "adapted to" is not a positive limitation since it only requires the ability to perform a function. The phrase "adapted to", therefore, does not constitute a limitation in any patentable sense, *in re Hutchinson, 69 USPG 138*. Appropriate correction is required.

2) Claim 18 is further objected to because of the following informalities: There is a minor grammatical error in the wording of claim 18. The examiner feels the word "the" should be removed from in between "using" and "a" in line 9. Appropriate correction is required.

## *Claim Rejections - 35 USC § 112*

1)  The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2)  Claims 1, 33, and 34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.  The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.  In claim 1, line 10, and in claim 33, line 8, the examiner found no support in the specification that clearly describes what is meant by implementing an application routing controller in "**various levels**" throughout the network.  Likewise, in claim 34, on pg. 25, line 4, the examiner found no support in the specification that clearly described the meaning for "**various coordinated layers**" of network.  In order for the examiner to advance prosecution of the application for patent, the examiner has omitted the terms "various levels" from claims 1 and 33, and "various coordinated layers" from claim 34.  Appropriate corrections are required.

## *Claim Rejections - 35 USC § 102*

1)  The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2) Claims 1-14, 20-28, 32-39, 44, 45, 48-50, are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Colby et al. (hereinafter Colby), U.S. patent 6,006,264.

3) In considering claims 1, 33, and 34, Colby discloses a system and method for directing data on an Internet protocol (IP) network having a plurality of communication links, the system and method comprising:

a) An origin node coupled to the network and adapted to supply data to the network, (col. 5, lines 1-3);

b) A plurality of system nodes coupled to the network and adapted to store at least a portion of the data supplied by the origin node, (col. 3, lines 36-42);

c) A plurality of servers for routing data between at least one of the system nodes and the network, (col. 4, line 67, col. 5, lines 1-3); and

d) A network-distributed application routing controller implemented in the network to ascertain location information of the data supplied by the origin node, to receive a data request from one of the plurality of system nodes, and to direct routing of the supplied data from a node on the network to the node to which the data has been requested to be delivered via one of the plurality of communication links and using at least one of the servers, the routing being directed in response to the ascertained data location information, (col. 2, lines 48-58).

4) In considering claim 2, Colby teaches the system nodes providing data location information to the network, the data location information including the type of data stored at the system node. See col. 2, lines 53-58.

5) In considering claim 3, Colby teaches the application routing controller receiving the data location information form the system node and directing the routing in response to the received data location information. See col. 8, lines 16-31.

6) In considering claim 4, Colby teaches one of the servers and at least two of the system nodes making up a local network, wherein the routing controller effects data routing between two system nodes coupled to the server via the local network. See col. 5, lines 43-51.

7) In considering claim 5, Colby teaches the local network server including an edge server. See col. 4, lines 60-62.

8) In considering claim 6, it is inherent in the teachings of Colby that the local network server includes a replication device for replicating data, and sending the replicated data to one of the system nodes. See col. 3, lines 36-42.

9)  In considering claim 7, it is inherent in the teachings of Colby that the local network server replicates data in response to a command from the controller.  See col. 3, lines 36-42.

10)In considering claim 8, it is inherent in the teachings of Colby that a replication device sends replicated data to a system node via the network.  See col. 3, lines 36-42.

11)In considering claim 9, Colby teaches a network data traffic monitor for detecting a characteristic of one or more of the communication links for use in routing the data.  See col. 9, lines 1-15.

12)In considering claim 10, Colby teaches the application routing controller including the traffic monitor.  See col. 9, lines 13-15.

13)In considering claim 11, Colby teaches the traffic monitor detecting a characteristic that includes the rate at which a particular communications link can transfer data.  See col. 16, lines 66-67, col. 17, lines 1-15.

14)In considering claim 12, it is inherent in the teachings of Colby that the traffic monitor detects a characteristic representing the capacity of a communication link to transfer additional data.  See col. 16, lines 66-67, col. 17, lines 1-15.

15) In considering claim 13, Colby teaches the application routing controller using the information detected by the traffic monitor to direct data routing via a communication link identified as having sufficient availability to transfer the data.  See col. 16, lines 66-67, col. 17, lines 1-15.

16) In considering claim 14, Colby teaches the application routing controller delaying a data transfer in response to the communication link being unable to handle additional data transfer.  See col. 16, lines 66-67, col. 17, lines 1-15.

17) In considering claim 20, Colby teaches one of the system nodes simultaneously transferring data from a data set while the data set is being received, in response to a command from the application routing controller.  See col. 15, lines 31-48.

18) In considering claim 21, Colby teaches the system node delaying subsequent transfer of received data until a selected amount of data has been received.  See col. 9, lines 1-12.

19) In considering claim 22, it is inherent in the teachings of Colby that the system node effects the delay in response to the rates at which it is receiving and sending the data, wherein the delay is sufficient to reduce the possibility of running out of data for

the subsequent transfer due to the rate at which the data is being received. See col. 9,

lines 1-12.


20)In considering claim 23, Colby teaches a subscription content manager

programmed to manage system subscriptions to a provider's content, the subscription

management including providing authorization for a particular user to receive selected

content data. See col. 3, lines 10-28.


21)In considering claim 24, Colby teaches the application routing controller

directing routing in response to the provided authorization. See col. 3, lines 10-28.


22)In considering claim 25, Colby teaches the routing controller programmed to

track and report data transfer information. See col. 6, lines 42-45.


23)In considering claim 26, Colby teaches one of the system nodes programmed

to track and report data transfer. See col. 8, lines 16-31.


24)In considering claim 27, Colby teaches the application router controller

directing data transfer of streaming media content for immediate use at one of the

system nodes. See col. 15, lines 31-48.

25)In considering claim 28, Colby teaches at least one of the system nodes making the received data available for use in response to a transmission report being sent from the system node to the application routing controller.  See col. 8, lines 16-31.

26)In considering claim 32, Colby teaches the application routing controller sharing data transfer information with other application routing controllers, and using the data location information ascertained by other application routing controllers.  See col. 8, lines 26-31.

27)In considering claim 35, Colby teaches ascertaining information from the plurality of system nodes that describes data stored at the system node.  See col. 2, lines 53-58.

28)In considering claim 36, Colby teaches programming the system nodes to provide the data location information that is used in directing the routing.  See col. 5, lines 4-12.

29)In considering claim 37, Colby teaches sending a request to each system node, wherein the system node responds to the request by sending data location information that is used in directing the routing.  See col. 8, lines 16-31.

30)In considering claim 38, Colby teaches routing a live event using streaming data. See col. 15, lines 31-48.

31)In considering claim 39, it is inherent that the teachings of Colby provide for selecting a pay-per-view media event via the network, wherein routing the data includes routing the media event. See col. 15, lines 31-48.

32)In considering claim 44, Colby teaches directing routing of data from more than one node. See col. 5, lines 4-12.

33)In considering claim 45, Colby teaches re-ascertaining data location while the data is being routed, and wherein directing routing of the requested data includes directing the routing in response to the re-ascertained location information data. See col. 5, lines 4-12.

34)In considering claim 48, Colby teaches the data request including a routing priority, wherein directing routing includes routing the data according to the priority. See col. 2, lines 58-67, col. 3, lines 1-3.

35)In considering claim 49, Colby teaches using subscription content information to determine whether the system node making the data request is authorized to receive

the data, wherein routing the data includes routing the data in response to the system

node being authorized to receive the data. See col. 3, lines 10-28.

36) In considering claim 50, Colby teaches directing an origin node to deliver a

data file to the network. See col. 5, lines 62-67, col. 6, lines 1-6.

### Claim Rejections - 35 USC § 103

1) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2) Claims 15, 16, 29, 40-43, are rejected under 35 U.S.C. 103(a) as being

unpatentable over Colby in view of Miller et al. (hereinafter Miller), U.S. patent

5,920,701.

3) In considering claim 15, although the disclosed system of Colby shows

substantial features of the claimed invention, it fails to expressly disclose:

   a) Predicting the amount of data that will be transferred during a particular

   time.

Nevertheless, in a similar field of endeavor, Miller teaches a method for

scheduling data transmission comprising:

a)  A routing controller 10, for detecting a characteristic to predict the amount

of data that will be transferred over a communication link during a

particular time period, (col. 8, lines 34-49).

Thus, given the teachings of Miller, it would have been obvious to a person of

ordinary skill in the art at the time of the present invention to modify the teachings of

Colby to show the routing controller detect a characteristic to predict the amount of data

that will be transferred over a communication link during a particular time period.  This

would have facilitated delivery of data to requesting system nodes in an optimized and

efficient manner, Miller col. 1, lines 51-56.

4)  In considering claims 16 and 40, Miller teaches the routing controller directing

the data transfer during a time period that is predicted to have a lower amount of data

being transferred in relation to another time period.  See col. 10, lines 1-19.  One of

ordinary skill in the art would modify the teachings of Colby with Miller for the same

reasons indicated in consideration of claim 15.

5)  In considering claim 29, although the disclosed system of Colby shows

substantial features of the claimed invention, it fails to expressly disclose:

a)  The system node using a security code to make data useable at the node.

Nevertheless, using security codes to make data useable was well known in the

art at the time of the present invention.  This is demonstrated in the method taught by

Miller where his method teaches:

a) An application routing controller sending a security code to a system node, wherein the system node uses the security code to make data usable at the node, (col. 6, lines 40-44).

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the present invention to modify the teachings of Colby to show the routing controller sending a security code to the system node in response to the transmission report being received, wherein the system node uses the security code to make the received data useable at the node. Doing so would have provided a reliable, tamper-proof system for transmitting data between the routing controller and the system node.

6) In considering claim 41, Miller teaches scheduling the routing to occur when the detected amount of data traffic reaches a target traffic level. See col. 10, lines 1-19. One of ordinary skill in the art would modify the teachings of Colby with Miller for the same reasons indicated in consideration of claim 40.

7) In considering claim 42, Miller teaches re-evaluating the routing schedule before the scheduled routing time. See col. 12, lines 21-41. One of ordinary skill in the art would modify the teachings of Colby with Miller for the same reasons indicated in consideration of claim 15.

8) In considering claim 43, Miller teaches detecting the amount of data traffic on the network. See col. 8, lines 34-49. One of ordinary skill in the art would modify the

teachings of Colby with Miller for the same reasons indicated in consideration of claim 15.


9)  Claims 17, 46, 47, are rejected under 35 U.S.C. 103(a) as being unpatentable over Colby in view of Wolpert, U.S. patent 6,577,601.


10)In considering claims 17 and 46, although the disclosed system of Colby shows substantial features of the claimed invention, it fails to expressly disclose:

a)  Routing data using a least-cost route.

Nevertheless, routing data using a least-cost route was well known in the art at the time of the present invention.  Wolpert, in a similar field of endeavor where he discusses the prior art, teaches:

a)  Routing data over a particular communication link using a least cost route,

(col. 2, lines 24-31).

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the present invention to modify the teachings of Colby to show the routing controller detecting a characteristic that includes the cost of routing data over a particular communication link and to direct the data using the least-cost route.  Doing so would have minimized resource utilization while implementing a cost-efficient, user-friendly means for transparently routing data from one point to another.

11)In considering claim 47, it is implicit in the teachings of Wolpert that a cost is associated with at least one of: the distance that data must travel over a selected data routing path, the cost of sending data over a selected data routing path, and the cost of sending the data at a selected time of day. See col. 2, lines 24-57. One of ordinary skill in the art would modify the teachings of Colby with Wolpert for the same reasons indicated in consideration of claim 46.

12)Claims 18, 19, are rejected under 35 U.S.C. 103(a) as being unpatentable over Colby in view of Wolpert, and further in view of Miller.

13)In considering claim 18, although the disclosed system of Colby in view of Wolpert shows substantial features of the claimed invention, it fails to expressly disclose:

a) Detecting a delivery related characteristic.

Nevertheless, the method of Miller teaches:

a) A routing controller 10, for detecting a delivery related characteristic, (col. 6, lines 35-51).

Thus, given the teachings of Miller, it would have been obvious to a person of ordinary skill in the art at the time of the present invention to modify the teachings of Colby and Wolpert to show the routing controller detecting a characteristic that includes a delivery-related characteristic of routed data over a particular communications link, and to direct the data using a least cost route meeting a selected delivery-related

characteristic criteria. This would have facilitated delivery of data to requesting system

nodes in an optimized and efficient manner, Miller col. 1, lines 51-56.


14)In considering claim 19, Miller teaches the delivery-related characteristic

including at least one of: data transmission accuracy; data transmission speed; data

transmission security and data transmission time. See col. 6, lines 35-51. One of

ordinary skill in the art would combine the teachings of Colby and Wolpert with Miller for

the reasons indicated in consideration of claim 18.


15)Claims 30, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Colby in view of Reed et al. (hereinafter Reed), U.S. patent 5,862,325.


16)In considering claim 30, although the disclosed system of Colby shows

substantial features of the claimed invention, it fails to expressly disclose:

a) Decrypting received data.

Nevertheless, decrypting received data was well known in the art at the time of

the present invention. Reed, in a similar field of endeavor, demonstrates this in an

automated communications system comprising:

a) Decrypting received data, (col. 51, lines 42-48).

Thus, it would have been obvious to a person of ordinary skill in the art at the

time of the present invention to modify the teachings of Colby to show the system node

decrypting received data to make it available for use. This would have been a

necessary step in securely transmitting encrypted data between the system node and the application routing controller.

17) In considering claim 31, although the disclosed system of Colby shows substantial features of the claimed invention, it fails to expressly disclose:

    a)  Using Object Oriented Programming (OOP).

Nevertheless, OOP was well known in the art at the time of the present invention. This is exemplified in the method taught by Reed where the method teaches:

    a)  Communicating over a network using OOP, (col. 8, lines 51-63).

Thus, given the teachings of Reed, it would have been obvious to a person of ordinary skill in the art at the time of the present invention to modify the teachings of Colby to show the application routing controller communicating over the network using OOP communication.  This would have simplified transfer, storage and processing of the communication data, Reed, col. 8, lines 51-63.

## *Conclusion*

1) The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Colby et al., U.S. Patent 6,006,264 discloses a method and system for directing data on an IP network.

Miller et al., U.S. Patent 5,920,701 discloses a method for scheduling data transmission.

Wolpert, U.S. Patent 6,577,601 discloses associated costs for routing between nodes.
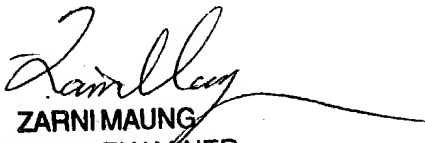
Reed et al., U.S. Patent 5,862,325 discloses routing methods using OOP.


2) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hassan Phillips whose telephone number is (703) 305-8760. The examiner can normally be reached on M-F 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (703) 308-6687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


HP/
8/3/04

ZARNI MAUNG
PRIMARY EXAMINER